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FIG.1

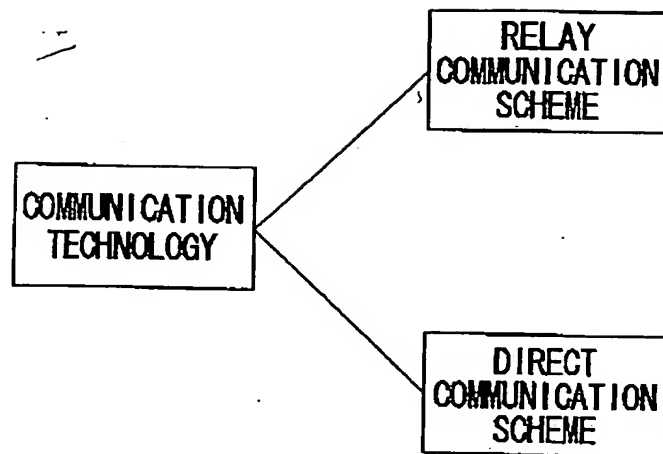


FIG.2A

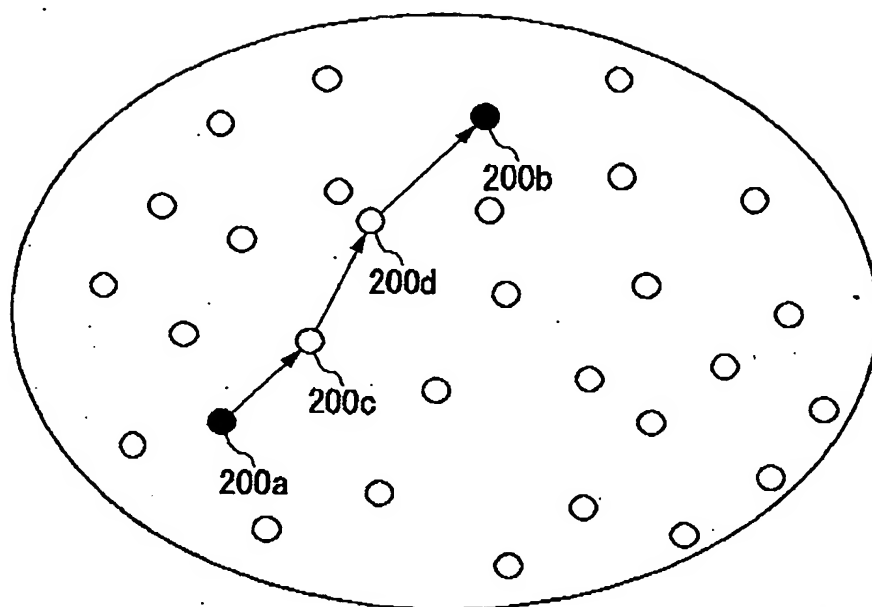
RELAY COMMUNICATION SCHEME

FIG.2B

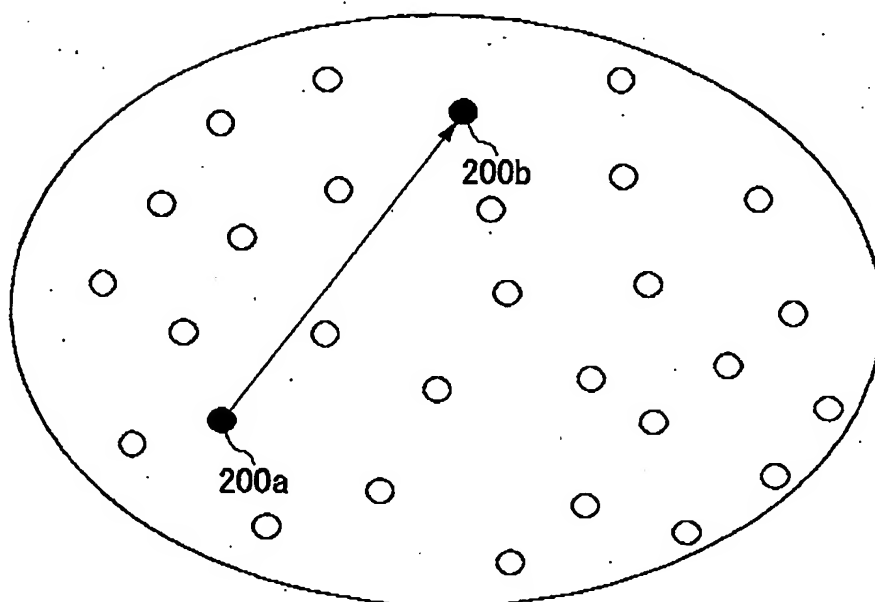
DIRECT COMMUNICATION SCHEME

FIG.3

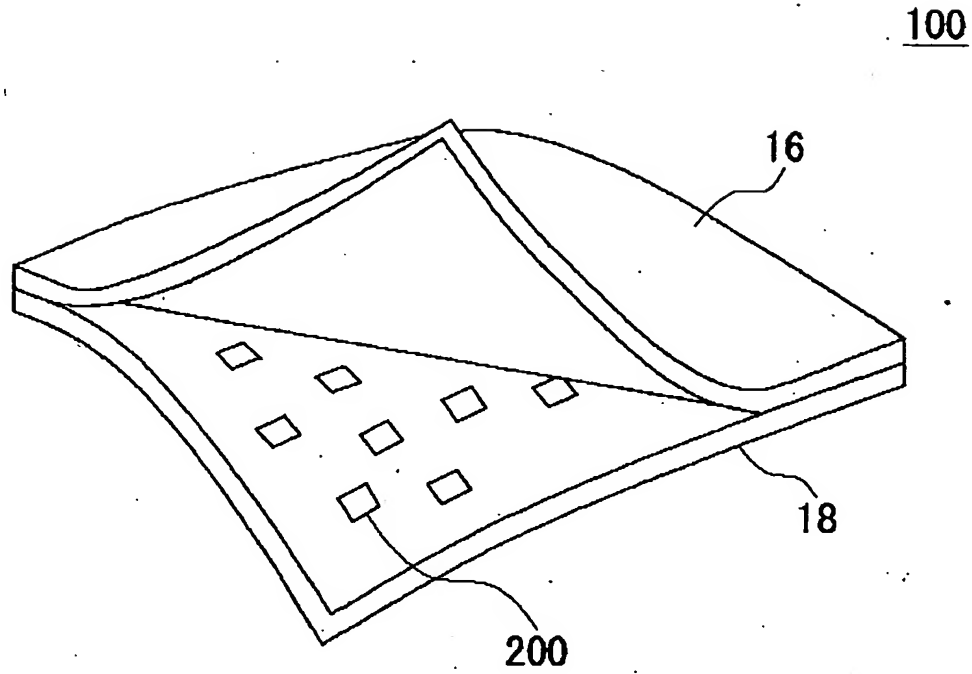


FIG.4

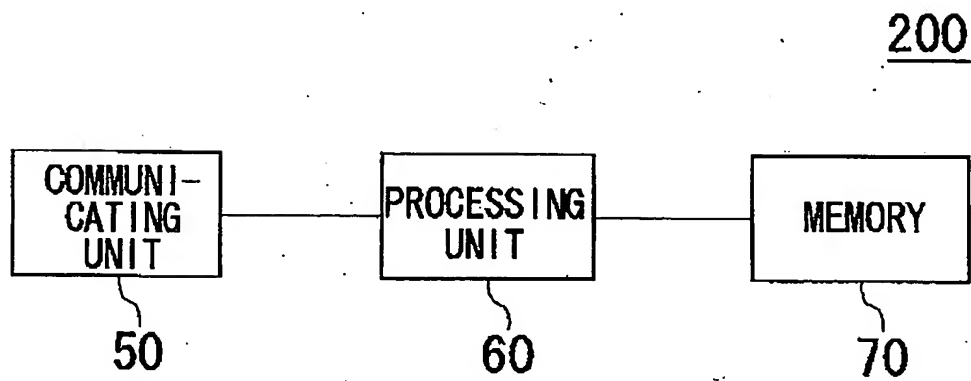


FIG. 5

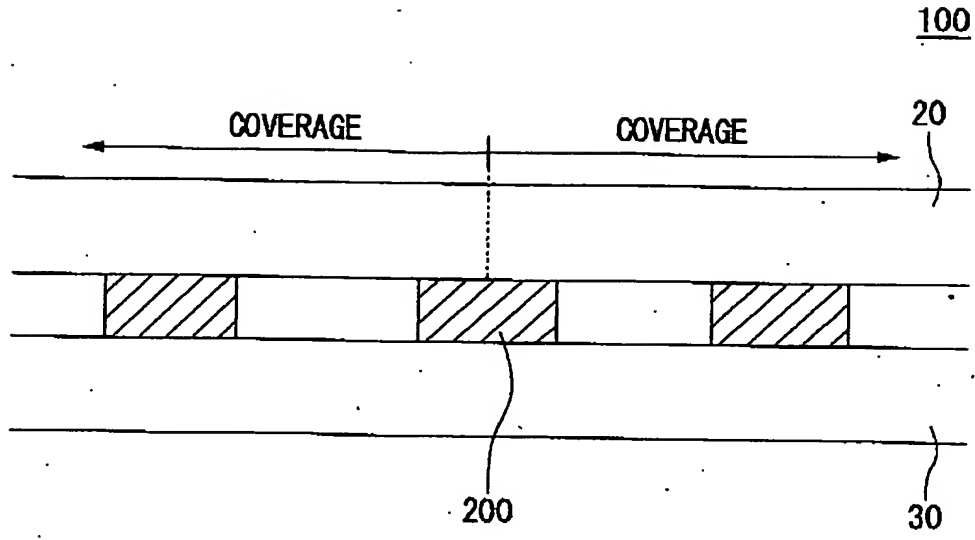


FIG. 6A

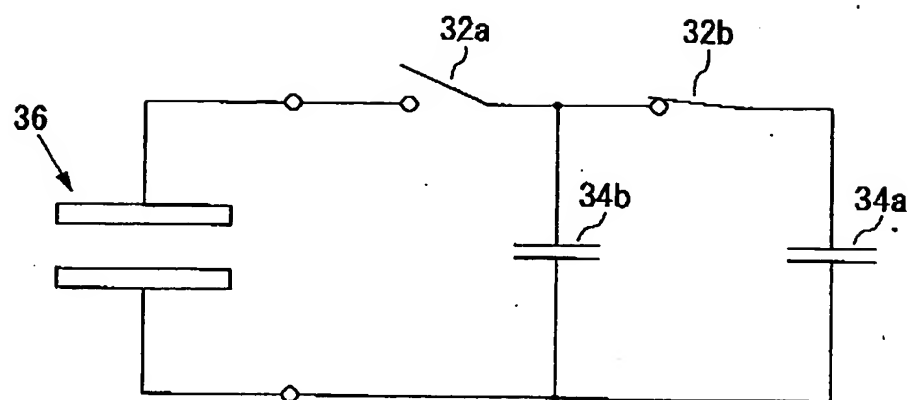
200

FIG. 6B

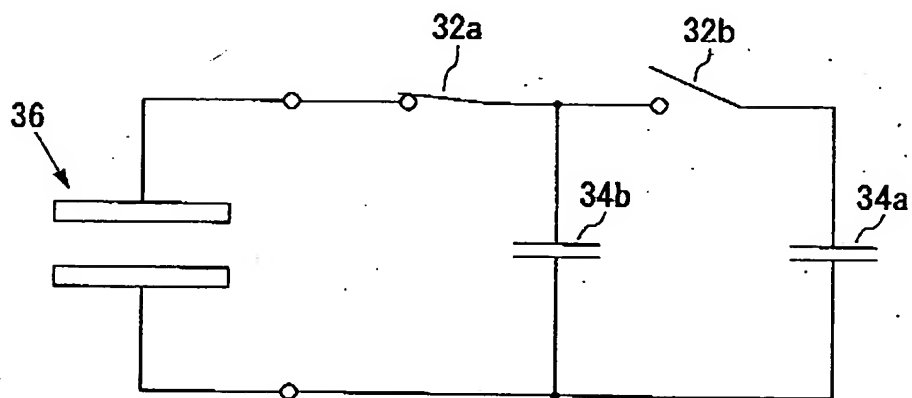
200

FIG.7

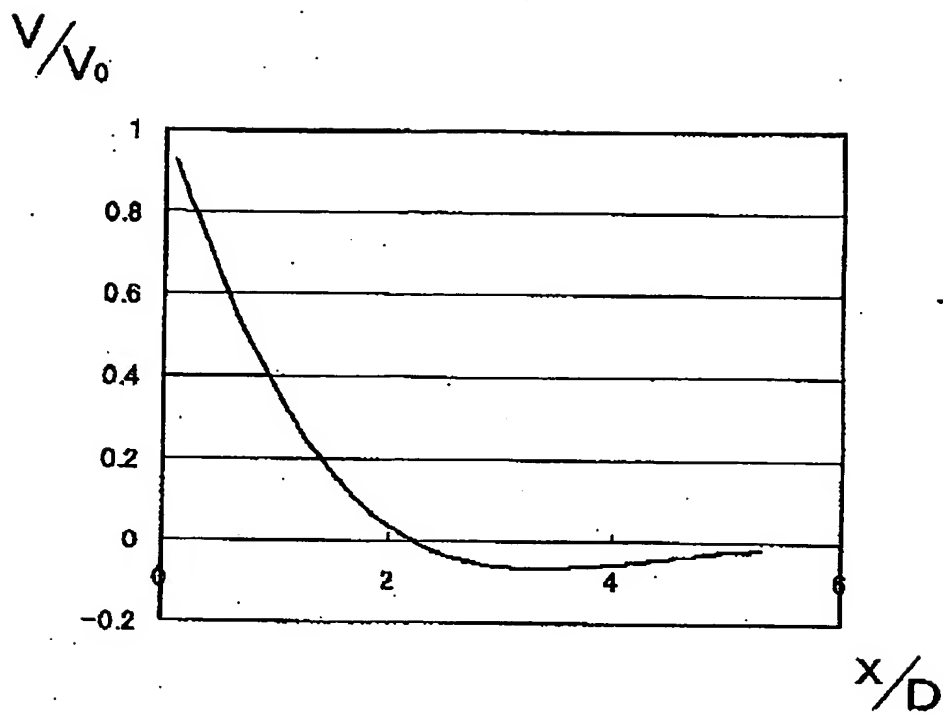


FIG. 8A

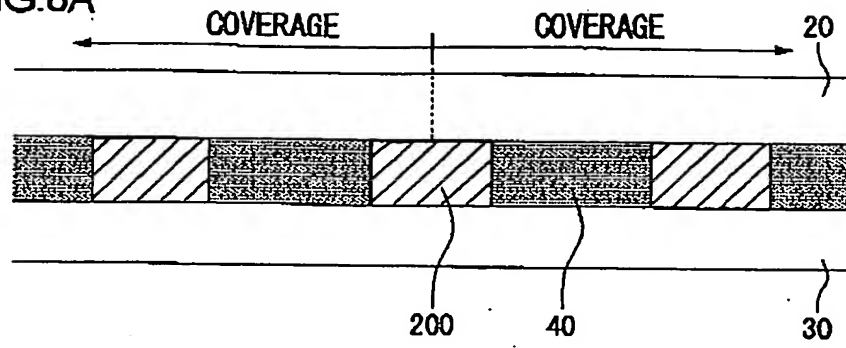


FIG. 8B

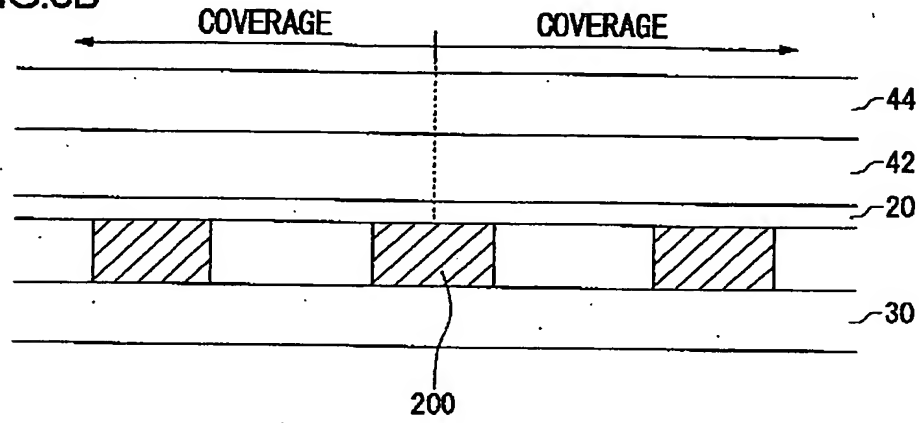


FIG. 8C

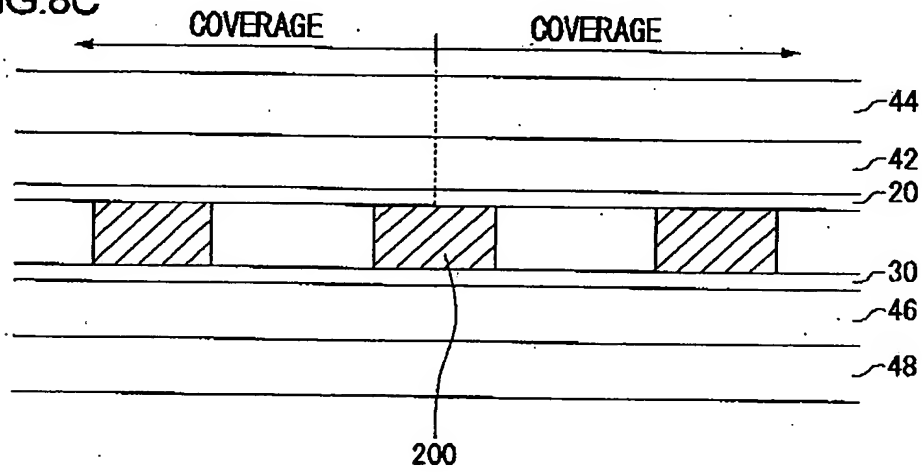


FIG. 9

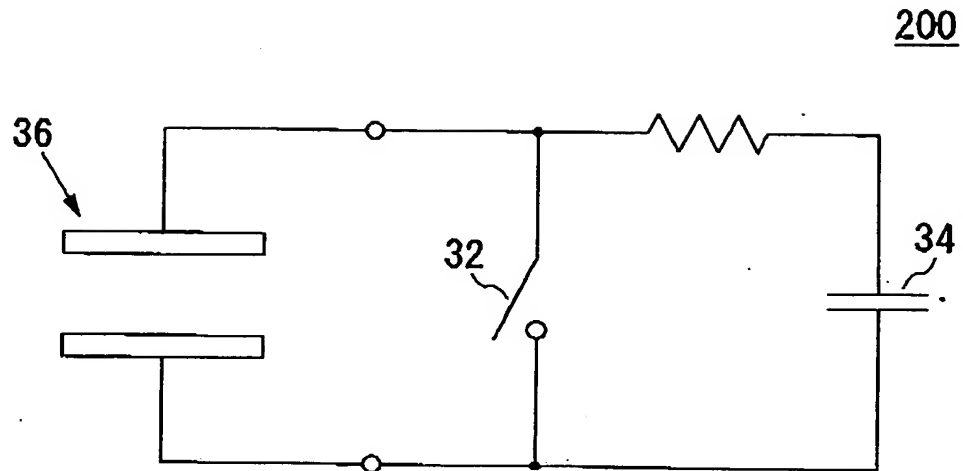


FIG. 10

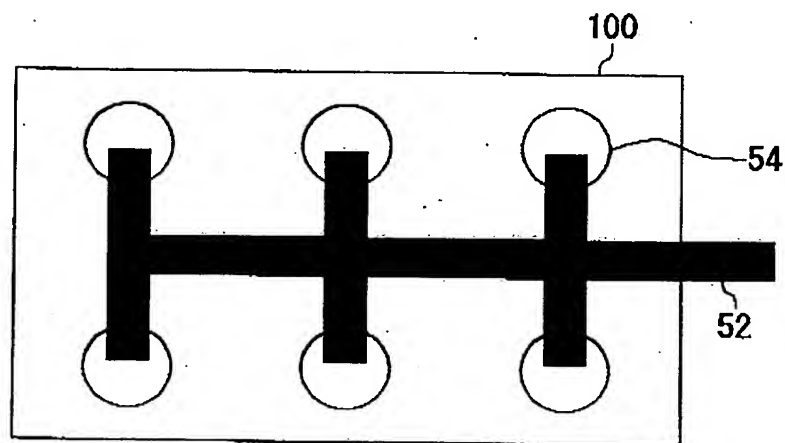


FIG.11

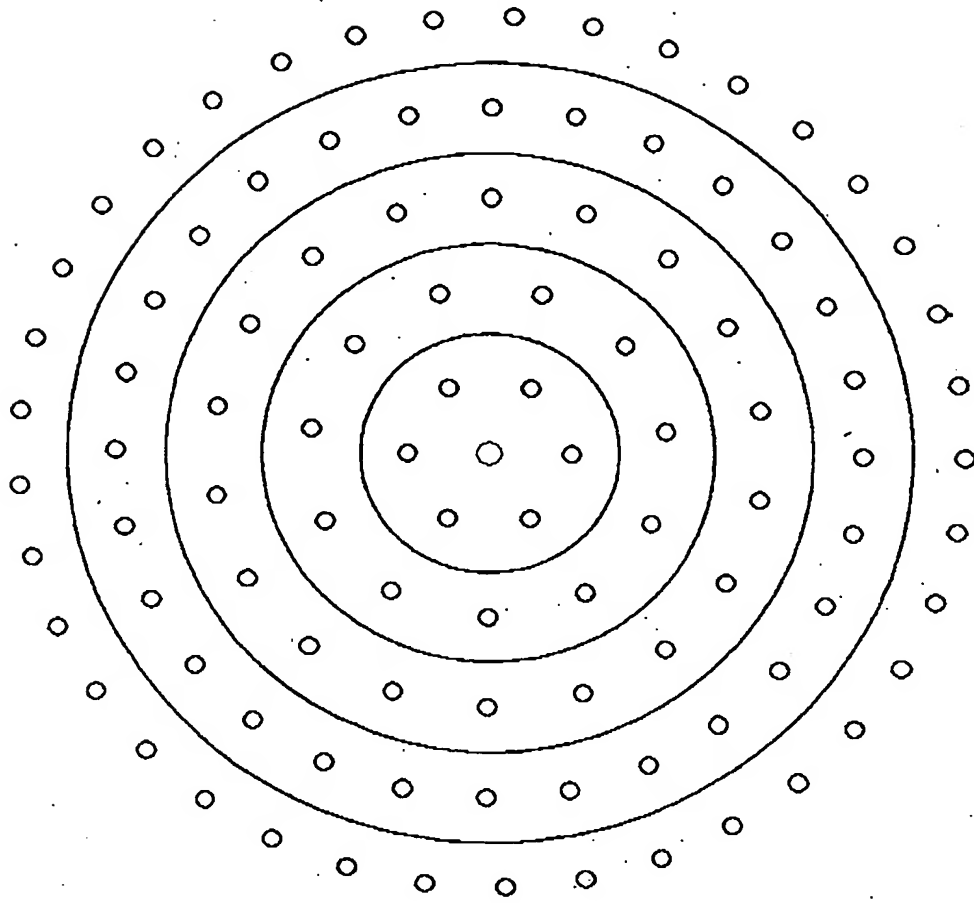


FIG.12

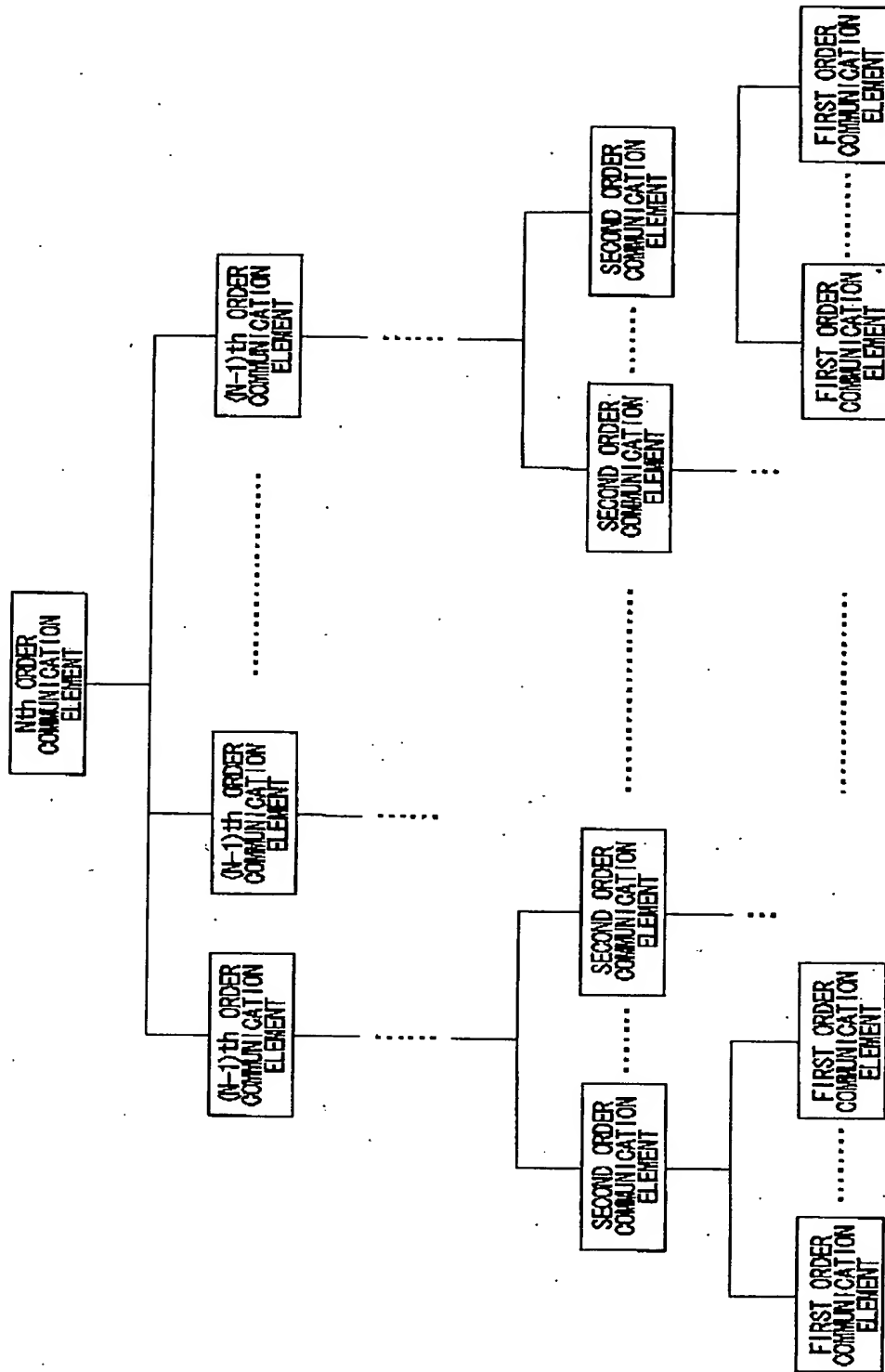


FIG.13

(1) COMMAND	(2) RECEIVING ELEMENT ID	(3) DESTINATION ELEMENT ID	(4) TRANSMITTING SOURCE ELEMENT ID	(5) NUMBER OF RANKS
(6) NUMBER OF RELAYS IN THE Nth ORDER RANK		(7) ROUTE DATA IN THE Nth ORDER RANK		
⋮			⋮	
(8) NUMBER OF RELAYS IN THE FIRST ORDER RANK		(9) ROUTE DATA IN THE FIRST ORDER RANK		
(10) TRANSMITTED DATA				

FIG.14

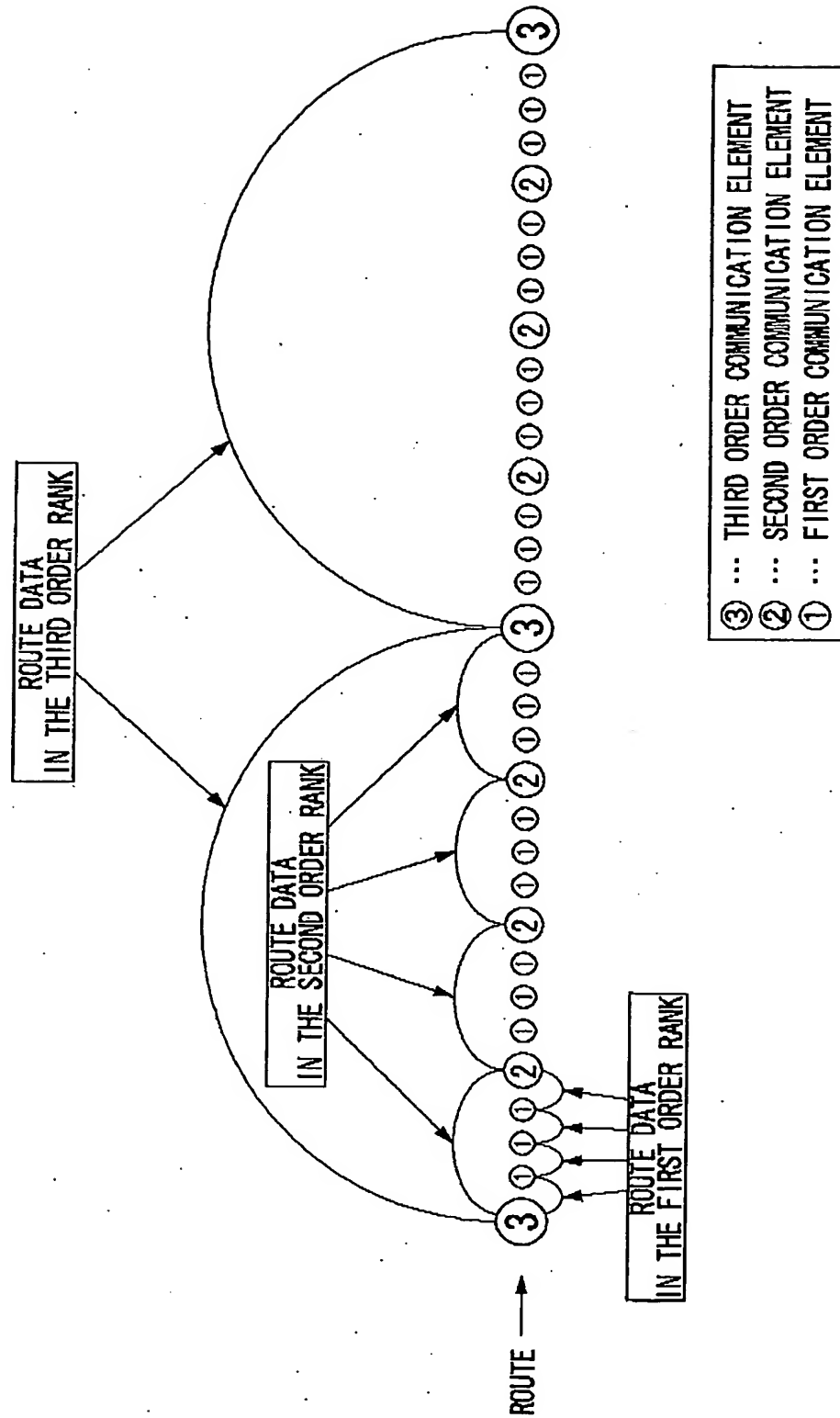


FIG.15

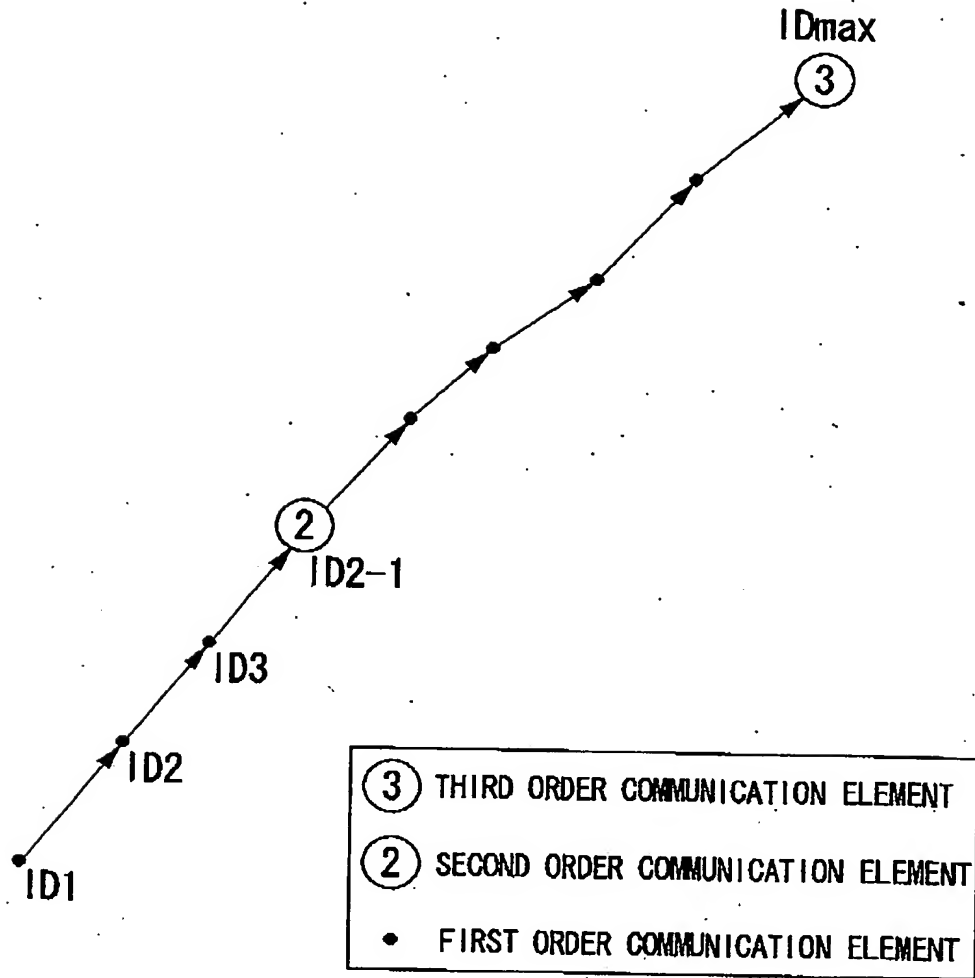


FIG. 16

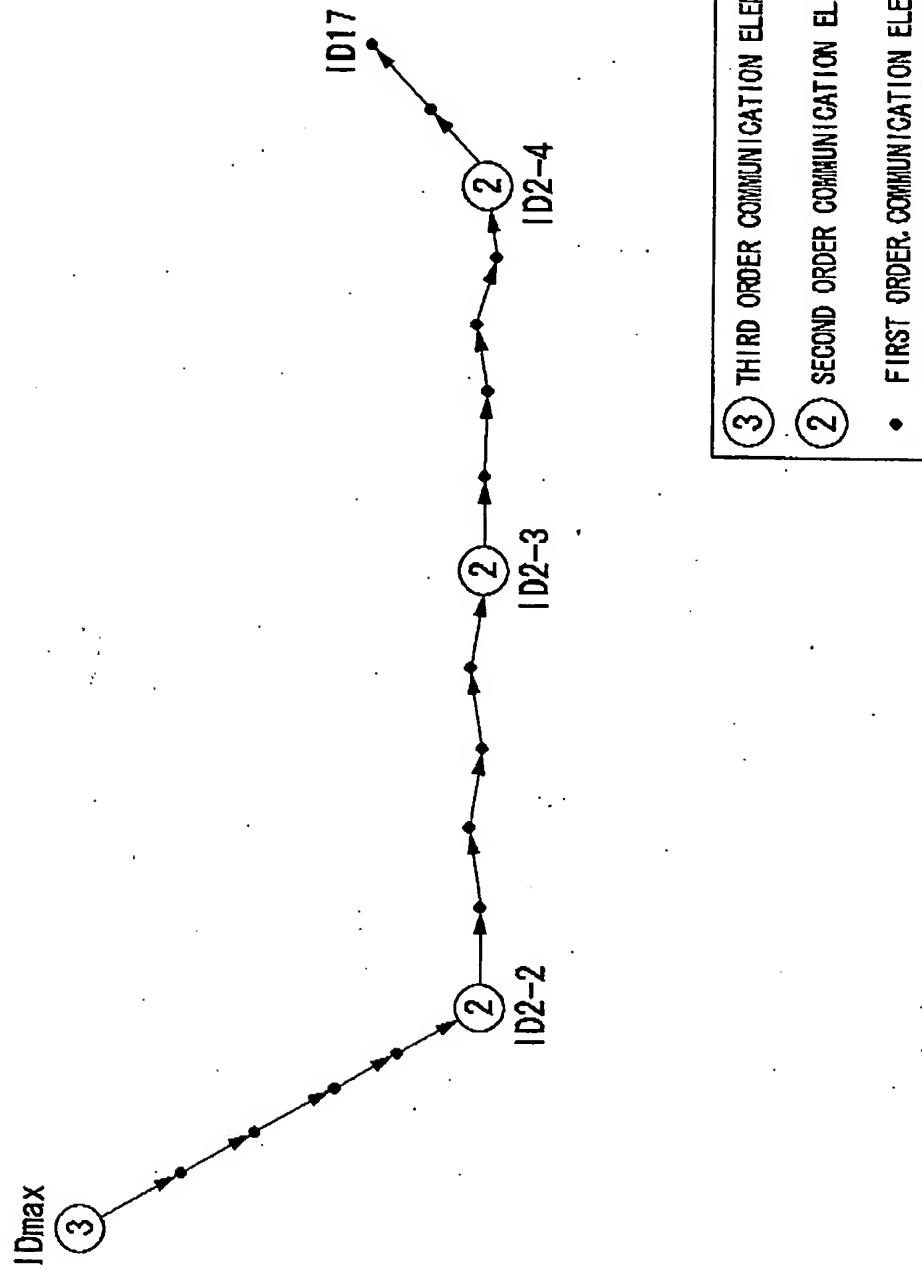


FIG.17

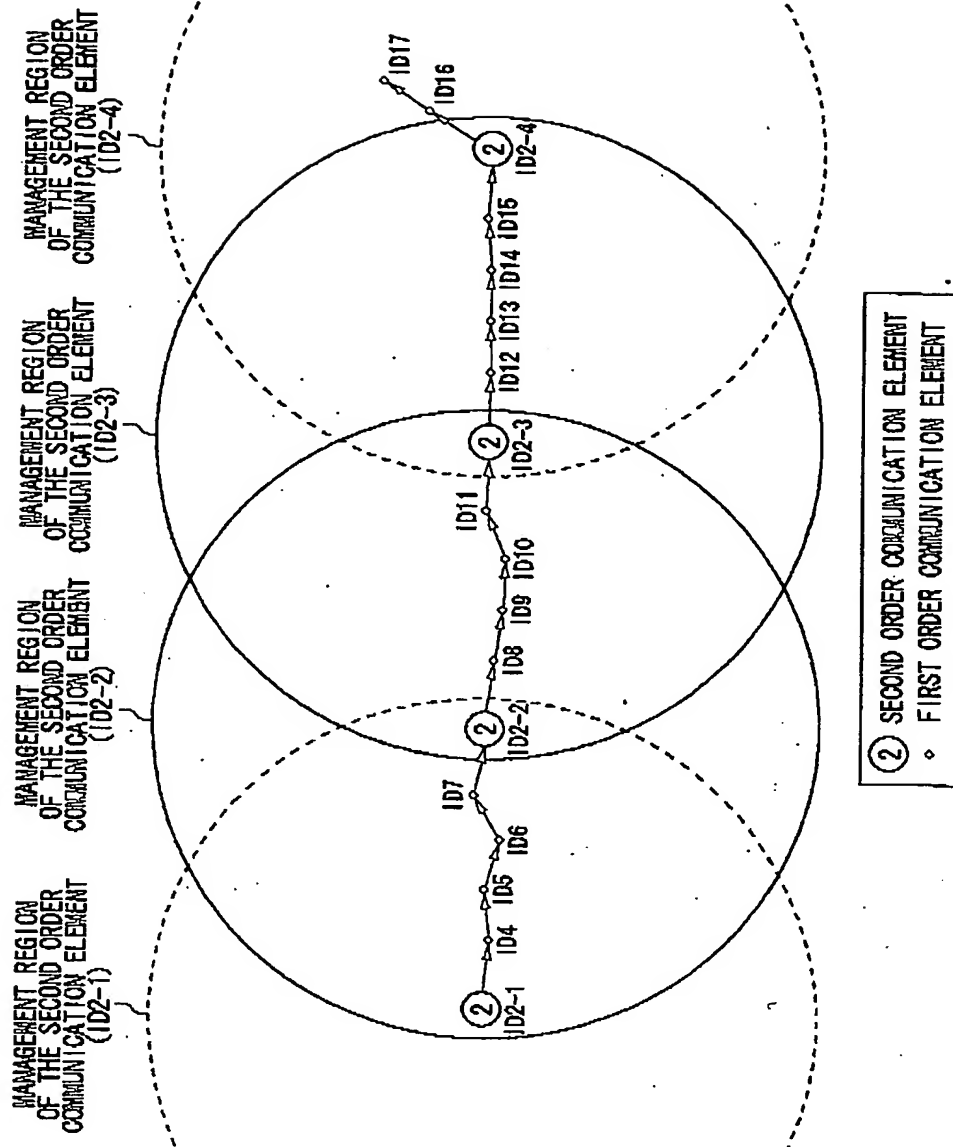


FIG.18A

(1) 0001	(2) ID4	(3) ID17	(4) ID1	(5) 2
(6) 3		(7) ID2-2, ID2-3, ID2-4		
(8) 5		(9) ID4, ID5, ID6, ID7, ID2-2		
(10) TRANSMITTED DATA				

FIG.18B

(1) 0001	(2) ID5	(3) ID17	(4) ID1	(5) 2
(6) 3		(7) ID2-2, ID2-3, ID2-4		
(8) 4		(9) ID5, ID6, ID7, ID2-2		
(10) TRANSMITTED DATA				

FIG.18C

(1) 0001	(2) ID8	(3) ID17	(4) ID1	(5) 2
(6) 2		(7) ID2-3, ID2-4		
(8) 5		(9) ID8, ID9, ID10, ID11, ID2-3		
(10) TRANSMITTED DATA				

FIG.18D

(1) 0001	(2) ID16	(3) ID17	(4) ID1	(5) 2
(6) 0		(7)		
(8) 2		(9) ID16, ID17		
(10) TRANSMITTED DATA				

FIG.19

NEIGHBORHOOD RESPONSE REQUEST

COMMAND	ORDER OF RESPONDING ELEMENT	PARENT ELEMENT ID
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FIG.20

NEIGHBORHOOD CHECK REQUEST

COMMAND	RECEIVING ELEMENT ID	ORDER OF RESPONDING ELEMENT	PARENT ELEMENT ID
NUMBER OF RELAYS IN THE FIRST ORDER RANK		ROUTE DATA IN THE FIRST ORDER RANK	

FIG.21

NEIGHBORHOOD COPY REQUEST

COMMAND	RECEIVING ELEMENT ID	PARENT ELEMENT ID
NUMBER OF RELAYS IN THE FIRST ORDER RANK		ROUTE DATA IN THE FIRST ORDER RANK
DATA		

FIG.22

CHECK REPORT

COMMAND	RECEIVING ELEMENT ID	PARENT ELEMENT ID
NUMBER OF RELAYS IN THE FIRST ORDER RANK		ROUTE DATA IN THE FIRST ORDER RANK
DISTINCTION BETWEEN THE ACTUAL AND NON-ACTUAL PARENT		TRANSMITTING SOURCE ELEMENT ID

FIG.23

RELAY ACKNOWLEDGEMENT NOTICE

COMMAND	RECEIVING ELEMENT ID	PARENT ELEMENT ID
NUMBER OF RELAYS IN THE FIRST ORDER RANK	ROUTE DATA IN THE FIRST ORDER RANK	

FIG.24

RELAY ID CHANGE REQUEST

COMMAND	RECEIVING ELEMENT ID	PARENT ELEMENT ID
NUMBER OF RELAYS IN THE FIRST ORDER RANK	ROUTE DATA IN THE FIRST ORDER RANK	
NEW ID		

FIG.25

RELAY NEIGHBORHOOD RESPONSE REQUEST

COMMAND	RECEIVING ELEMENT ID	DESTINATION ELEMENT ID	ORDER OF RESPONDING ELEMENT	PARENT ELEMENT ID
NUMBER OF RELAYS IN THE (M-1)th ORDER RANK	ROUTE DATA IN THE (M-1)th ORDER RANK			
:	:			
NUMBER OF RELAYS IN THE FIRST ORDER RANK	ROUTE DATA IN THE FIRST ORDER RANK			

FIG.26

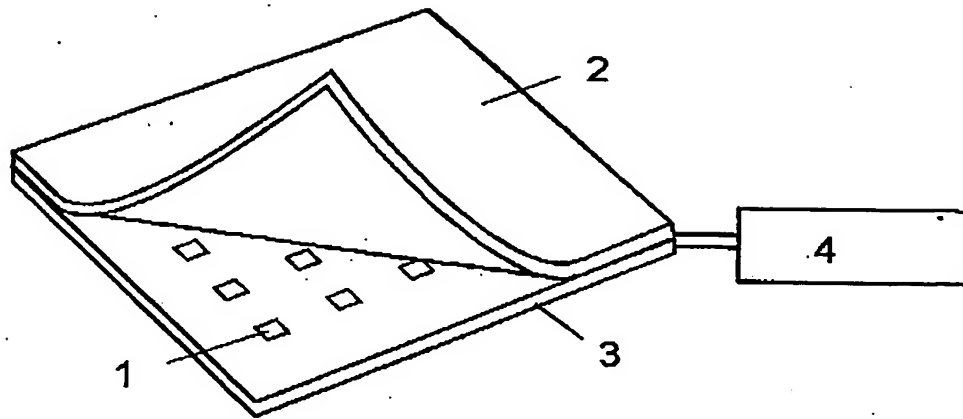


FIG.27

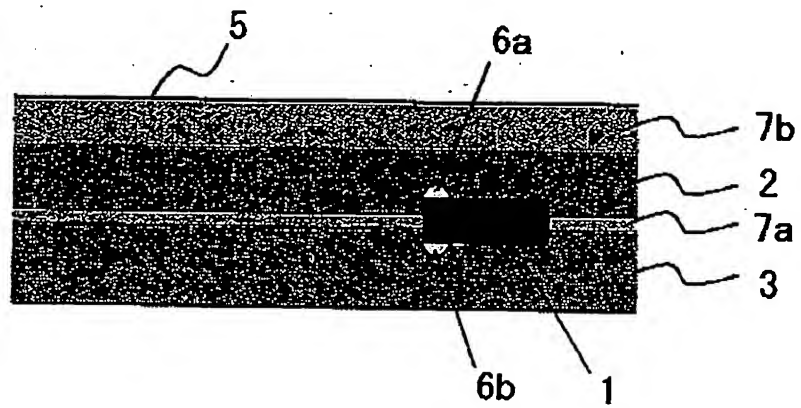


FIG.28A

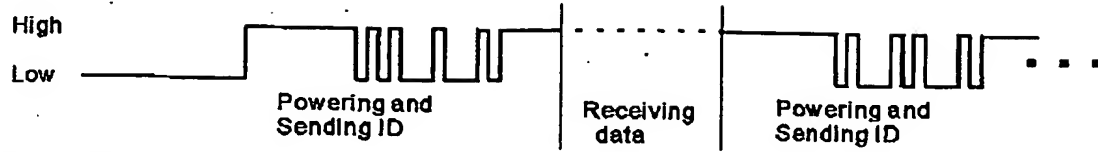


FIG.28B

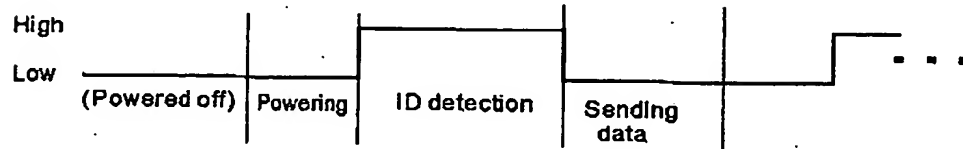


FIG.28C

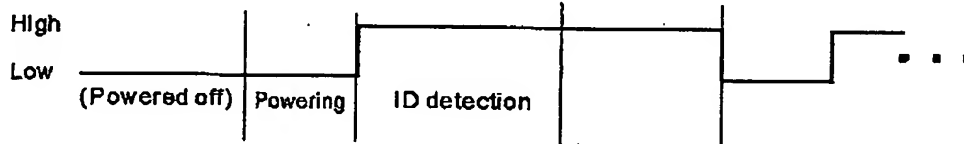


FIG.29A

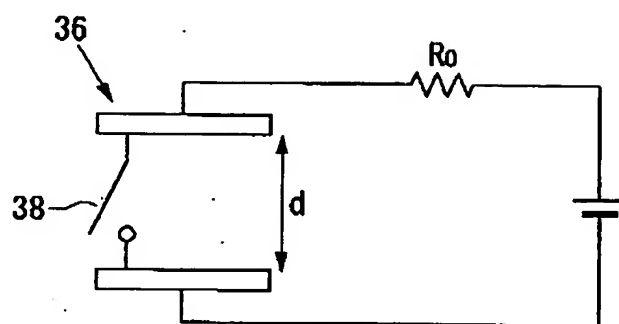


FIG.29B

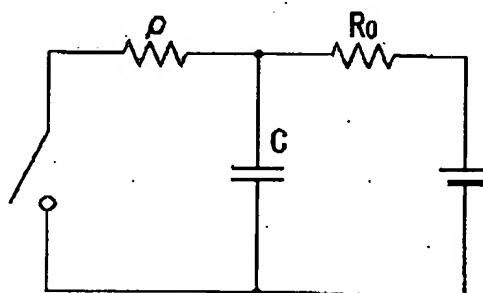


FIG.29C

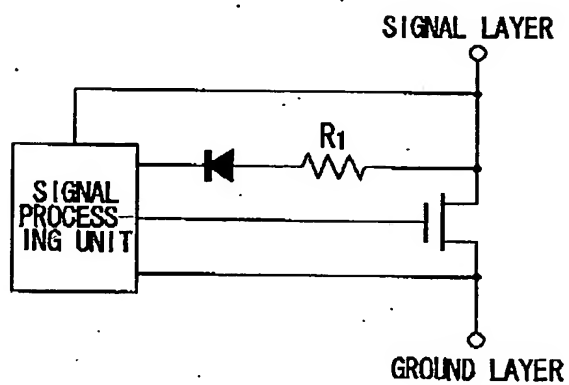


FIG.29D

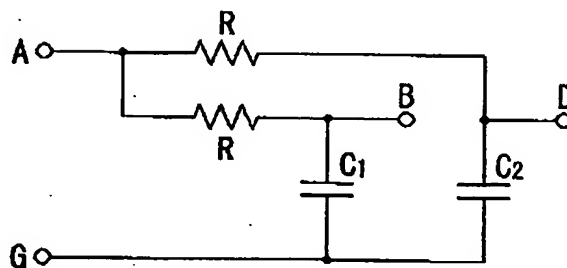


FIG.30A

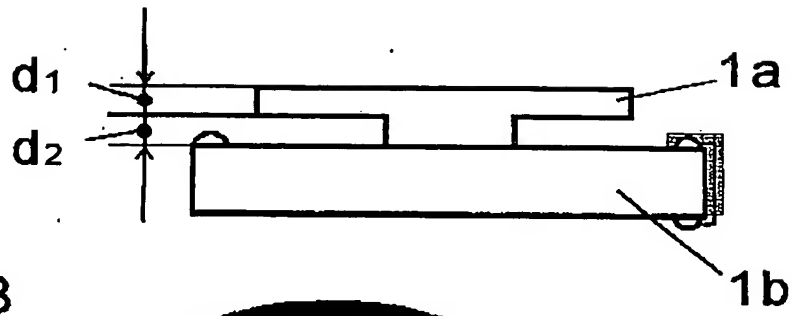


FIG.30B

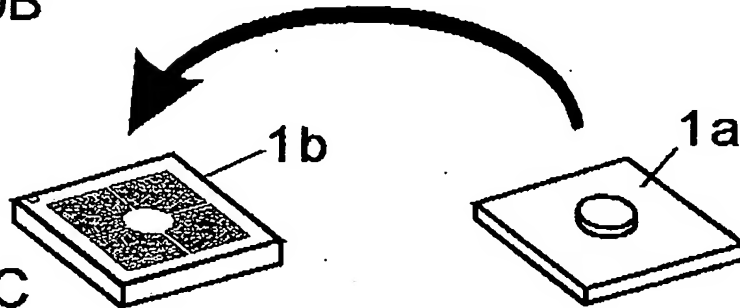


FIG.30C

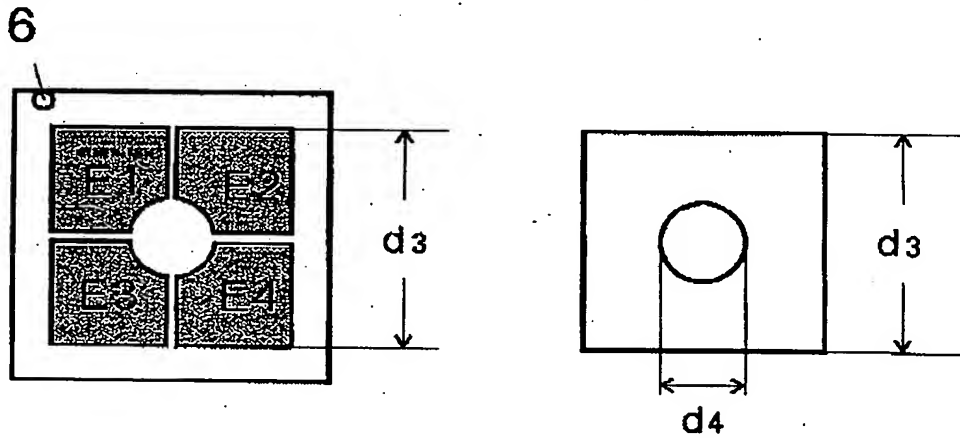


FIG.31

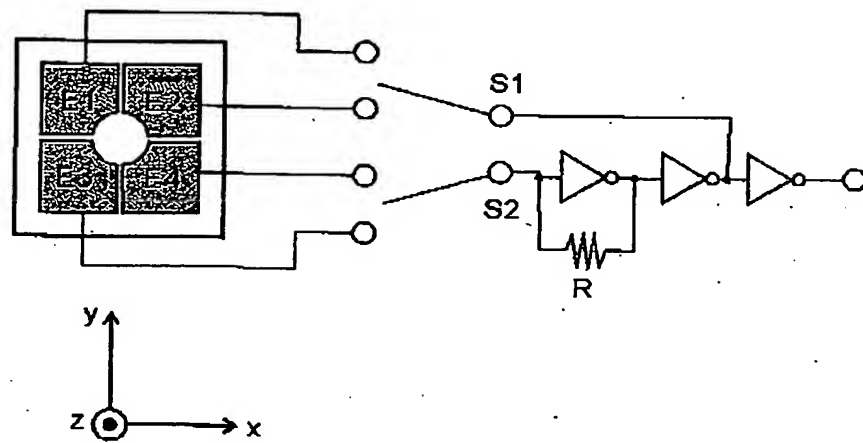


FIG.32

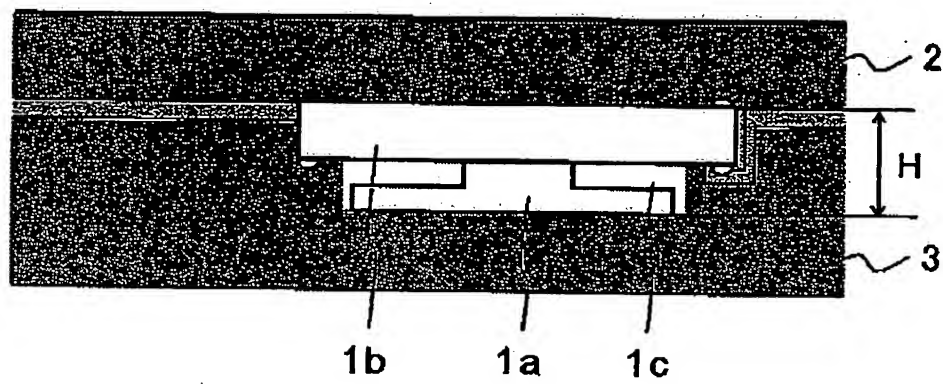


FIG.33

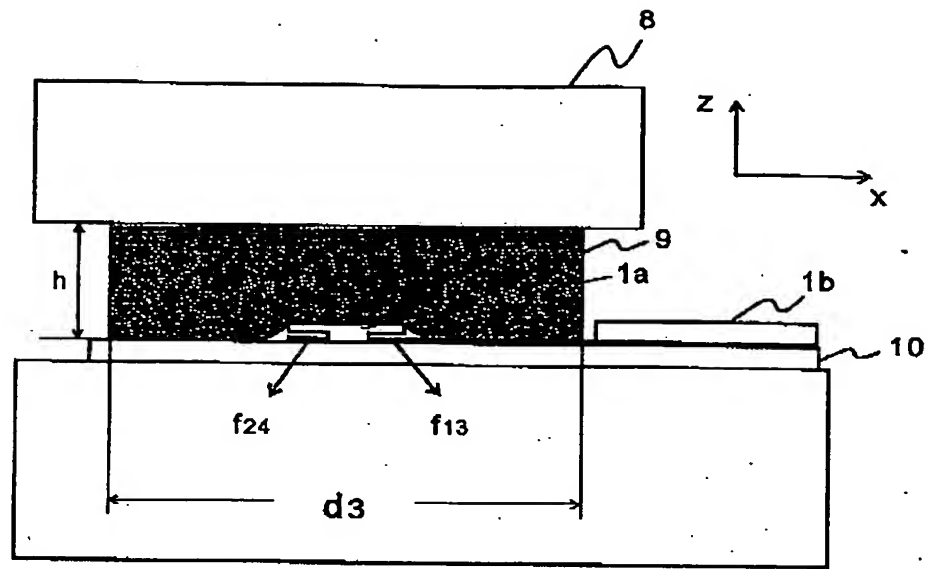


FIG.34

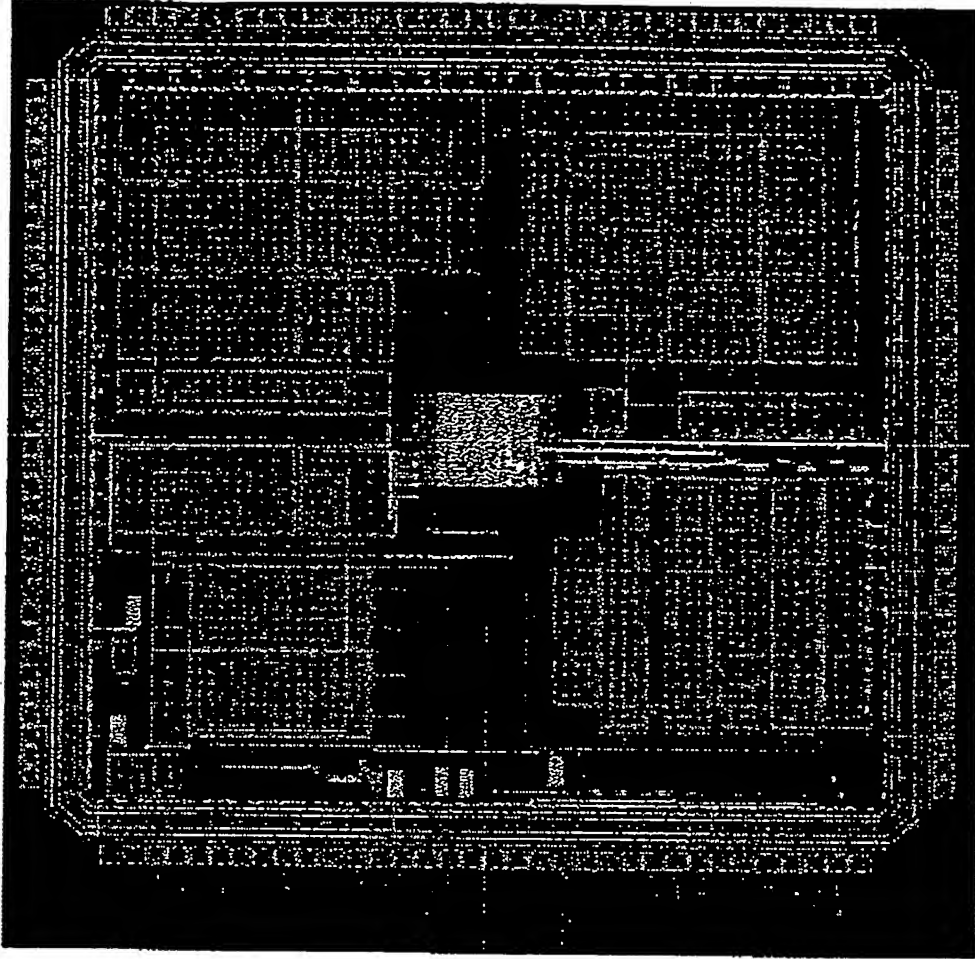


FIG.35A

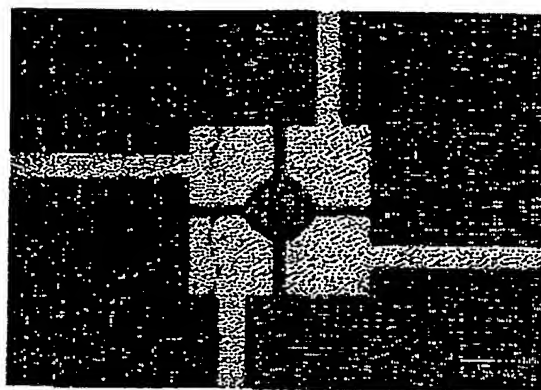


FIG.35B

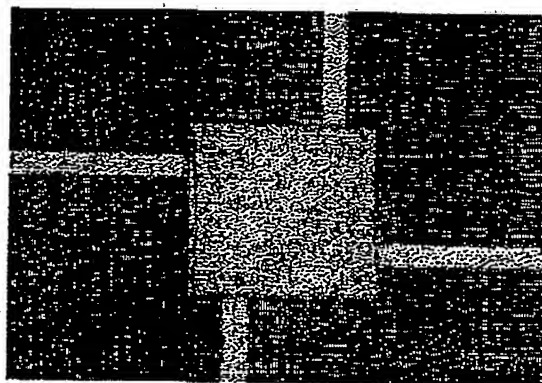


FIG.36

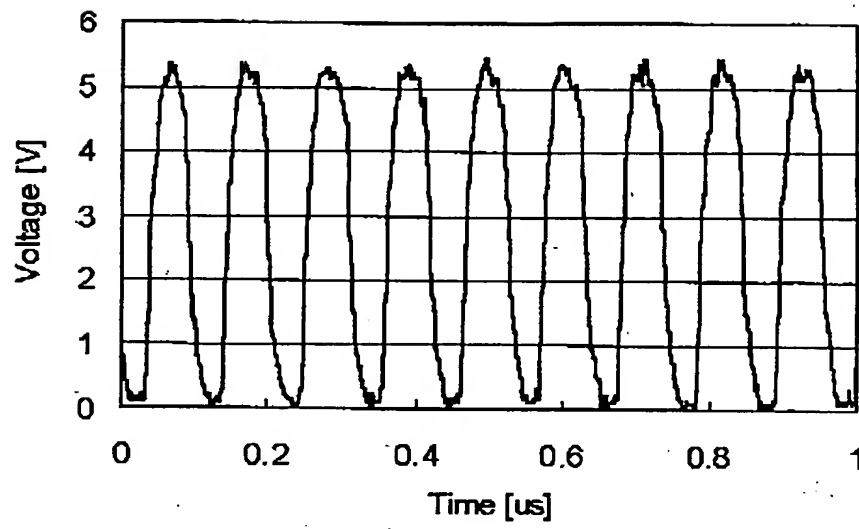


FIG.37A

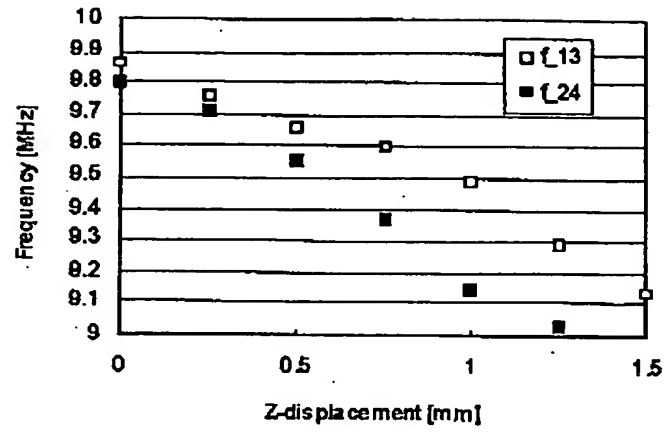


FIG.37B

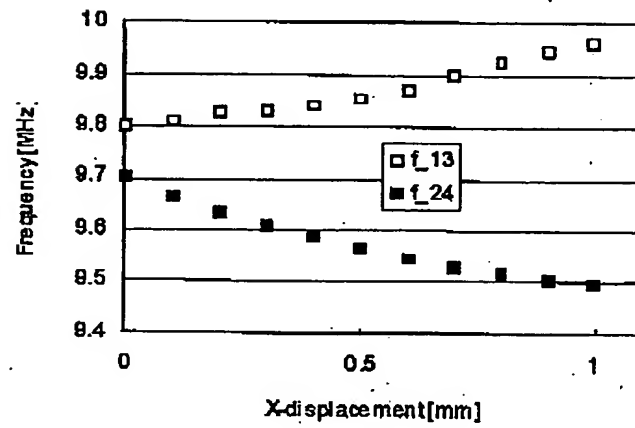


FIG.38A

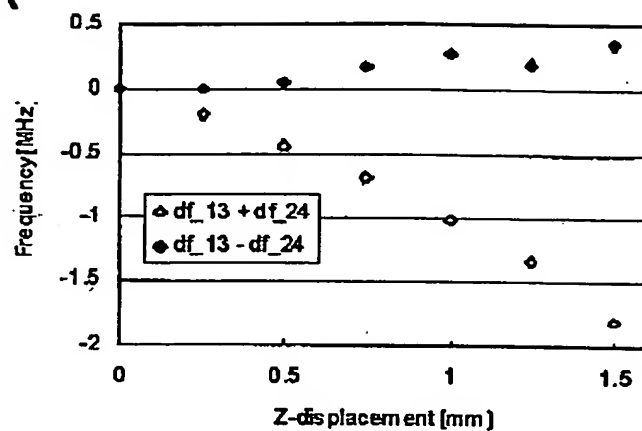


FIG.38B

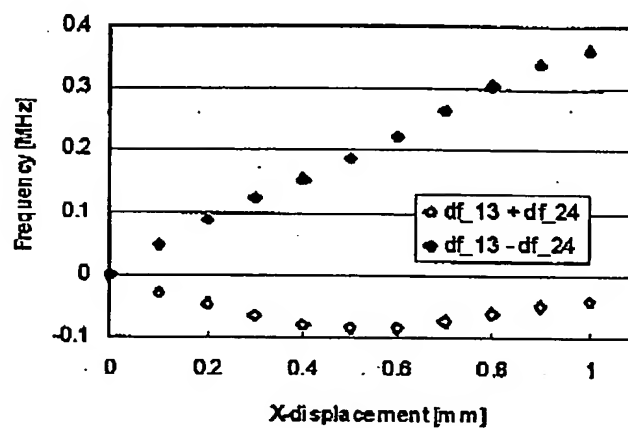


FIG.39

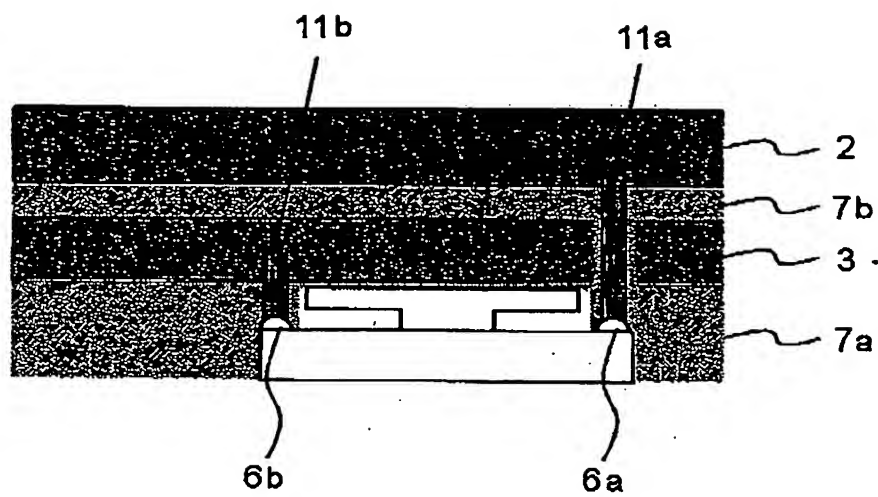


FIG.40

